

# U2 DYNAMICS

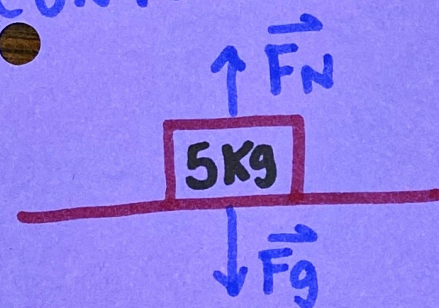
Newton's 3 Laws

1. INERTIA
2.  $\Sigma \vec{F} = m \cdot a$
3. Every Force has an equal & opposite Reaction Force.

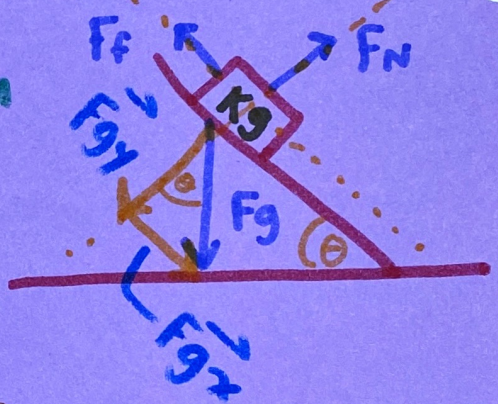
the FORCES behind MOTION

STRONG NUCLEAR	WEAK NUCLEAR	GRAVITATION	ELECTRO-MAGNETIC
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CONTACT (ie: Applied) NON-CONTACT (ie: Grav.)



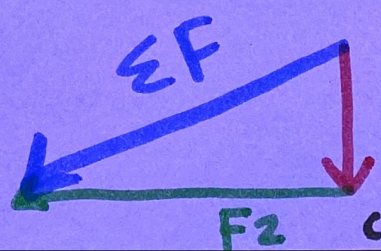
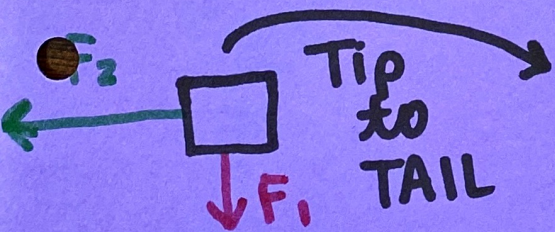
"WEIGHT" is  $\vec{F}_g$



START @ N  $[N 40^\circ W]$  towards W  
 $\uparrow 40^\circ$  from N

\*SPLIT angled FORCES into x/y components and then solve w/ SOHCAHTOA

STATIC = STOP  
 KINETIC = MOTION



$\vec{F}_f = \vec{F}_N \mu$   
 coefficient of friction